



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Matalco Inc., Bluffton, Indiana

FROM: Tess Russell, Environmental Engineer
AECAB (MN/OH)

THRU: Brian Dickens, Section Supervisor
AECAB (MN/OH)

TO: File

BASIC INFORMATION

Facility Name: Matalco Inc.

Facility Location: 1390 S Adams Street, Bluffton, IN 46714 (0 EJ indices >80th percentile, U.S. Census Block Group)

Date of Inspection: 8/24/2022

EPA Inspector(s):

1. Tess Russell, Environmental Engineer
2. Virginia Galinsky, Environmental Engineer

Other Attendees:

1. Jesse Fredrick – HR Manager & former EHS Manager, Matalco
2. Austin Cincotta – General Manager, Matalco
3. Allison Lauth – Environmental Manager 2, IDEM inspector

Contact Email Address: jfredrick@matalco.com

Purpose of Inspection: To determine compliance with Part 63, Subpart RRR

Facility Type: Secondary Aluminum Production

Regulations Central to Inspection: Part 63, Subpart RRR – MACT for Secondary Aluminum Production; TV Permit (#179-44802-00036)

Arrival Time: 9:15 AM

Departure Time: 12:30 PM

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Provided Small Business Resource Information Sheet
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Jesse Fredrick and Austin Cincotta unless otherwise noted.

Company Ownership: In 2018, the facility formerly known as Alexin LLC was bought out and became Matalco Inc.

Process Description: Matalco is a secondary aluminum production facility that produces ingots and billets. The facility's reverberatory (reverb) furnace melts scrap aluminum deposited via charge car. One cast is made of approximately 80-120k pounds of aluminum, or 4-5 pushes from the charge car. Molten metal is then transferred to a holding furnace where other alloys might be introduced, depending on customer needs. When composition and temperature are both appropriate, the holding furnace tilts and the casting process ensues, producing ingots or billets.

Ingots are generally complete at this stage; billets go through additional production steps including homogenization, cooling, and sawing. Homogenization includes putting the billets in a natural gas-run oven to make the insides molten, and after cooling a Loma or slug saw cuts the billets to desired lengths.

The facility's rotary furnace reprocesses impurities, or dross, removed via skim car from the surface of molten metal. Scrap metals can also be added to the rotary furnace. Byproducts exiting the rotary furnace include salt cake which is shipped off site for reprocessing, dross, and usable aluminum redirected back to the reverb furnace.

Staff Interview: Facility representatives stated that the rotary furnace was added in 2020. At the time of the inspection, the rotary furnace had been inoperable since April 2022 due to structural damage to its building. Facility representatives estimated the rotary furnace would be running again in November 2022. The rotary furnace runs on oxyfuel. According to facility representatives, only one alloy requires an added flux in the reverb furnace and/or holding furnace which promotes the production of dross.

The facility has two lime-injected baghouses and one dust collector. The reverb and rotary furnaces are controlled by lime-injected baghouses. Lime-feed rates are read on control screens, and according to facility representatives, operators check the lime bags every four hours. Facility representatives stated that the lime-feed is intermittent. According to facility representatives, at the time of the inspection the system was set to blow lime for 60 seconds, sit idle for 45 minutes, and then repeat. The representatives stated that the timing can be and has been changed as needed to achieve the minimum lime injection rates required by the facility's permit. The permit does not have a numeric limit for minimum lime injection rate, but rather states the minimum shall be set by the most recent stack test, which EPA requested to see. The facility calculates total lime injection per calendar day (lb/day) and currently ensures that each day's total is above 252 lb. Subpart RRR states that facilities must obtain approval for intermittent lime addition.

According to facility representatives, the baghouses also have continuous readings of pressure differentials, with records being kept; and records of the inlet temperatures to the baghouses. They also conduct daily visible emission checks on the baghouses. According to facility representatives, both baghouses have leak detection systems in use, an option presented by Subpart RRR. The last bag changes were in November 2020 for the reverberatory furnace and July 2020 for the rotary furnace.

The holding furnace has a main stack straight to atmosphere which is uncontrolled; when the door is opened for skimming dross, emissions are directed toward and controlled by the dust collector. Facility representatives stated that visible emissions checks are conducted weekly on the uncontrolled stack (as required by the permit) and were unsure if pressure differential is monitored on the dust collector. According to the facility's permit, this pressure drop should be monitored daily.

When switching operations between Group 1 Furnace and Group 2 Furnace at the reverberatory furnace, as permitted by the facility permit, facility representatives stated that they keep records of when they operate as either. The transition includes a "dry clean" of the furnace walls and floor. There is no lime injection or fluxing when the furnace is under Group 2 classification, nor is the baghouse operated. In the past year, the facility representatives only remembered running the reverb furnace as a Group 2 furnace for the June stack test.

The hot dross press and cooling operations last operated sometime prior to 2018, according to facility representatives. While the rotary furnace is down, the facility sends out about 600k-800k pounds of dross per month. The facility also stated that they have increased throughput and production in the last five years.

TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

EPA observed the yard of scrap and an active dross skimming of the reverb furnace. At 11:00 AM local time, the reverb furnace baghouse pressure was 4.3 inches of water column and the inlet temperature was 255 degrees Fahrenheit. One of the four flaps above the reverb furnace

door hood was missing. As EPA observed dross skimming of the reverb furnace, EPA observed small puffs of emissions escape the door hoods when the dross dropped into the dross pot.

EPA noted that the holding furnace was in tilted position during the inspection, and when it is, no longer connects to the dust collector ducting. EPA also noted flaps on the hood above where the melting furnace opens for dross removal were in some places missing or damaged. EPA observed the reverb furnace baghouse which appeared very dirty outside and observed the bypass line that bypasses the baghouse leading straight to the stack. EPA noted open stack testing ports.

EPA observed the holding furnace dust collector, and the dross storage area which is used when dross cannot be sent straight to the rotary furnace. The dross storage area had a hood leading to the dust collector with damaged flaps.

EPA observed an empty lime injection bag above the lime bin for the reverberatory furnace lime-injected baghouse. The posted minimum rate was 10.5 pounds/hour (lb/hr); the scale for the lime bin read 464 lb. Back on the operator screen at 11:47 AM, the one-hour average lime injection rate was 12.67 lb/hr and read 113 lb for the day, so far. EPA requested performance test results to verify required lime injection rates.

EPA observed the rotary furnace and the rotary furnace lime-injected baghouse, both of which were not in operation at the time of the inspection. The building structure is getting repaired and a new baghouse connection is being installed.

EPA observed a seldomly used degreaser with a dirty instruction sheet containing SafetyKleen degreaser. As required by the permit, the degreaser was equipped with a cover.

When EPA first arrived on site, EPA observed particulate matter release from the area above the water cooling towers and reverb furnace lime injected baghouse (but not its stack). *See Images #1 and 2.*

Photos and/or Videos: were taken during the inspection.

Field Measurements: were not taken during this inspection.

RECORDS REVIEW

1. Rotary Furnace Hood drawings (taken off-site)

CLOSING CONFERENCE

- ☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- Copy of test report from Rotary Furnace stack test in November 2021
- Copy of test report from Rotary Furnace stack test in June 2021

- June 21, 2022 Stack Test Report on the reverb furnace
- June 28, 2022 Stack Test Report on the holding furnace
- Name and SDS of degreaser(s) used
- Approval for the intermittent lime injection system, as required under Part 63, Subpart RRR

Concerns: EPA informed the company that the damaged hood flaps above the reverb furnace opening should be repaired. Properly installed flaps help direct emissions from the open furnace to the baghouse. EPA also suggested the company close the stack testing ports on the reverb furnace baghouse stack.

DIGITAL SIGNATURES

Report Author: _____

Section Supervisor: _____

Facility Name: Matalco Inc.

Facility Location: 1390 S Adams Street, Bluffton, IN 46714

Date of Inspection: August 24, 2022

APPENDICES AND ATTACHMENTS

1. Appendix A: Digital Image Log

Facility Name: Matalco Inc.
Facility Location: 1390 S Adams Street, Bluffton, IN 46714
Date of Inspection: August 24, 2022

APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: Virginia Galinsky	2. Archival Record Location: <i>ERC</i>
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Image Number	File Name	Date and Time (incl. Time zone and DST)	Description of Image
1	IMG_0084.JPG	2022:08:24 09:33:39	Visible emissions from water cooling tower
2	IMG_0085.JPG	2022:08:24 09:33:46	Visible emissions from water cooling tower (2)
3	IMG_0086.JPG	2022:08:24 10:54:50	Scrapyard
4	IMG_0087.JPG	2022:08:24 11:01:21	Tilted holding furnace
5	IMG_0088.JPG	2022:08:24 11:01:25	Skim car & reverberatory melting furnace
6	IMG_0089.JPG	2022:08:24 11:06:28	Lime-injected baghouse (for reverb furnace)
7	IMG_0090.JPG	2022:08:24 11:11:45	Main stack of reverb furnace baghouse
8	IMG_0091.JPG	2022:08:24 11:15:20	Dross cooling area, with hood and ducts to dust collector
9	IMG_0092.JPG	2022:08:24 11:21:12	Lime-injected baghouse (for reverb furnace) monitors
10	IMG_0093.JPG	2022:08:24 11:21:25	Lime-injection system for reverb furnace baghouse
11	IMG_0094.JPG	2022:08:24 11:34:11	Rotary furnace (out of service), roof
12	IMG_0095.JPG	2022:08:24 11:34:17	Lime-injection system for rotary furnace baghouse
13	IMG_0096.JPG	2022:08:24 11:39:51	Degreaser
14	IMG_0097.JPG	2022:08:24 11:48:30	Operator screen of monitored parameters for lime-injection system for reverb furnace baghouse
15	IMG_0098.JPG	2022:08:24 11:58:17	Reverb melting furnace, opened for dross skim car
16	IMG_0099.JPG	2022:08:24 12:00:04	Dross skimming of reverb melting furnace
17	IMG_0100.JPG	2022:08:24 12:04:20	Dross skimming of reverb melting furnace
18	IMG_0101.JPG	2022:08:24 12:06:29	Flux